



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/832,541

04/11/2001

David A. Morgenstern

MTC 6638.7

3285

321 7590 01/31/2007
SENNIGER POWERS
ONE METROPOLITAN SQUARE
16TH FLOOR
ST LOUIS, MO 63102

EXAMINER

OH, TAYLOR V

ART UNIT

PAPER NUMBER

1625

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
--	-------------------	---------------

3 MONTHS

01/31/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 01/31/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspatents@senniger.com

Office Action Summary	Application No. 09/832,541	Applicant(s) MORGENSTERN ET AL.	
	Examiner Taylor Victor Oh	Art Unit 1625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7, 9-14, 16-22, 24-39, 43-44, 46-48, 50-59, 61-67, 69-76, 93-97, 99-101, 169-176, 178-191, 194-202, and 208-254 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/23/06</u> | 6) <input type="checkbox"/> Other: _____ |

Continuation of Disposition of Claims: Claims pending in the application are 1,3-7,9-14,16-22,24-39,43,44,46-48,50-59,61-67,69-76,93-97,99-101,169-176,178-191,194-202 and 208-254.

Final Rejection

The Status of Claims

Claims 1,3-7,9-14,16-22,24-39,43-44,46-48,50-59,61-67,69-76,93-97,99-101,169-176,178-191,194-202, 208-254 are pending.

Claims 1,3-7,9-14,16-22,24-39,43-44,46-48,50-59,61-67,69-76,93-97,99-101,169-176,178-191,194-202, 208-254 have been rejected.

Claim Rejections - 35 USC § 112

1. Applicants' argument filed 11/02/06 have been fully considered but are not persuasive.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Although applicants have complied to some of the examiner's suggestions, the revised Claims 1-22, 30-59, 67-76, 93-97, 99-101, and 169-251 are still rejected under 35 USC 112, first paragraph due to applicants' failure to modify the claims in the

Art Unit: 1625

amendment .

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The rejection of Claims 2-4, 7-8, 11, 19, 32, 34, 35-40, 49, 51, 54, 67-68, 93, 169, 171-176, 190, 196, 216, 219, 222, 225, 228, 231, 234, 237, 240, 243, 246, and 249 under 35 U.S.C. 112, second paragraph, has been withdrawn due to applicants' convincing argument in the amendment.

The rejection of Claims 15-16, 23, 60, and 98-99 under 35 U.S.C. 112, second paragraph, has been withdrawn due to the modification and cancellation of the claims in the amendment, whereas rejection of Claims 25 and 62 under 35 U.S.C. 112, second paragraph, has been maintained due to applicants' failure to modify the claims in the amendment.

Claims 1 and its dependent claims are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 , the phrase " hydrocarbyl, or substituted hydrocarbyl" is recited.

This expression is vague and indefinite because the term " hydrocarbyl" would mean any compounds with carbon atom and hydrogen atom under the definition of

Art Unit: 1625

that term without specifying any carbon atom range; therefore, there is uncertainty in the claimed language with no metes and bounds. Furthermore, the phrase "substituted hydrocarbyl" is indefinite. In the absence of the specific moieties intended to effectuate modification by the "substitution" or attachment to the chemical core claimed, the term "substituted" renders the claims in which it appears indefinite in all occurrences wherein applicants fails to articulate by chemical name, structural formula or sufficiently distinct functional language, the particular moieties applicants regards as those which will facilitate substitution, requisite to identifying the composition of matter claimed. Therefore, an appropriate correction is required.

Claim Rejections - 35 USC 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The rejection of Claims 1, 15-18, 23-31, 46-49, 60-66, 74-76, 93, and 98-101 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goto et al (US 4,782,183) in view of Franczyk et al (U.S. 5,292,936) has been withdrawn due to applicants' convincing argument.

Applicants' Argument

2. The applicants argue the following issues:

a. the claimed invention includes hydrocarbyls wherein at least one hydrogen atom has been substituted with an atom other than hydrogen or a group of atoms containing at least one atom other than hydrogen ; the specification goes on to list examples wherein the hydrogen atom may be substituted with a halogen atom ,such as a chlorine or fluorine atom , a hydroxyl group, a carboxylic acid, an amide, nitro group, and $-\text{SO}_3\text{H}$ (see, for example, page 11 , lines 19-28) ; thus, the scope of the claimed invention and the claimed invention are defined and clear.

b. the Franczyk et al describes using a catalyst having only trace amounts of non-copper metals, 1 % or less non-copper metals and Goto et al describe using a catalyst containing copper in combination with a zirconium compound ,which is not described as a non-copper metal.

The applicants' argument have been noted, but these arguments are not persuasive.

First, with regard to the first arguments, the Examiner has noted applicants' argument. However, the instant claimed invention is highly unpredictable since one skilled in the art would recognize that dehydrogenating catalytically any primary alcohols with any hydrocarbyl or any substituted hydrocarbyl group consisted of various lengths and sizes of straight-chain or branched chain, cyclic alcohols, heterocyclic alcohols, any aromatic any alicyclic alcohols, and a divers scope of acyclic alcohols, and mixtures thereof would result in only the uncertainty of the outcomes of the process as shown in Lazier (US 1,975,853) and Hagemeyer (U.S. 3,254,128), which disclose not only the acid, but also ester, aldehyde, acid, ketone, which are not the intended final products of the claimed process (final product: the carboxylic acid salt). Therefore, any primary alcohols with any hydrocarbyl or any substituted hydrocarbyl group consisted of various lengths and sizes of straight-chain or branched chain, cyclic alcohols, heterocyclic alcohols, any aromatic any alicyclic alcohols, and a divers scope of acyclic alcohols, and mixtures thereof can not be translated to induce to form the production of the carboxylic acid salt product. Thus, unlike applicants' argument, the scope of the any hydrocarbyl or any substituted hydrocarbyl group is unlimited for the claimed invention.

Furthermore, regarding the indefiniteness of the claimed language "hydrocarbyl, and substituted hydrocarbyl", this expression is vague and indefinite because the term "hydrocarbyl" would mean any compounds with carbon atom and

Art Unit: 1625

hydrogen atom under the definition of that term without specifying any carbon atom range; therefore, there is uncertainty in the claimed language with no metes and bounds. Moreover, the phrase "substituted hydrocarbyl" is indefinite. In the absence of the specific moieties intended to effectuate modification by the "substitution" or attachment to the chemical core claimed, the term "substituted" renders the claims in which it appears indefinite in all occurrences wherein applicants fails to articulate by chemical name, structural formula or sufficiently distinct functional language, the particular moieties applicants regards as those which will facilitate substitution, requisite to identifying the composition of matter claimed. If applicants believe that those substituents are part of the claimed hydrocarbyl, the examiner should recommend those substituents to put into the claims. According to the case law, Ex parte Fressola, 27 USPQ 2d 1608 (USPTO Bd. App. & Int 1993), a claim referring to the specification is improper because the claims should particularly point out the subject matter that applicants regards as the invention. Therefore, applicants' argument is not persuasive.

Second, with regard to the second argument, the Examiner agrees.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 1625

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 1625

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taylor Victor Oh whose telephone number is 571-272-0689. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas McKenzie can be reached on 571-272-0670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Taylor Victor Oh, MSD,LAC
Primary Examiner
Art Unit : 1625

1/19/07